ABSTRACT

A method for detecting the endpoint of a chemical mechanical polishing (CMP) process uses the slope variation of temperature difference of polishing pad. The method combines temperature measurement at polishing pad and atmosphere, and numerical analysis to figure out the curve of temperature difference variation versus polishing time. The endpoint of CMP is determined by the change of the slope of the curve. The method allows endpoint to be detected in-situ at the polishing apparatus, without stopping polishing process.